

Secondary Math III
Forms of Quadratic Functions
Assignment 2.1

Name _____
Period _____

Identify and state what form the following quadratic functions are in.

1. $f(x) = (x - 2)(x + 7)$

2. $g(x) = 4(x - 3)^2 + 2$

3. $h(x) = 3x^2 + \frac{4}{5}x - 6$

Form: _____

Form: _____

Form: _____

4. $k(x) = x(x - \frac{1}{3})$

5. $j(x) = 3x^2 + 4x$

6. $l(x) = (x + 1)^2$

Form: _____

Form: _____

Form: _____

Change the following quadratic functions to standard form.

7. $f(x) = (x + 5)(x - 7)$

8. $g(x) = \frac{1}{3}(x + 6)^2$

9. $f(x) = -(2x + 1)(x - 3)$

10. $f(x) = 2(x + 1)^2 - 2$

11. $y = 3(x + 1)(x - 5)$

12. $f(x) = -2(x + \frac{7}{2})^2 - \frac{3}{2}$

Change the following quadratic functions to factored form.

13. $y = x^2 - 7x - 18$

14. $b(x) = x^2 - 9x - 36$

$$15. n(x) = x^2 + 14x + 48$$

$$16. d(x) = 3x^2 - 16x - 12$$

$$17. c(x) = 2x^2 + 13x + 21$$

$$18. y = 6x^2 + 26x + 24$$

$$19. h(x) = 4x^2 + 6x$$

$$20. t(x) = 7x^2 + 21x$$

**Review:
Simplify.**

$$21. \sqrt{28}$$

$$22. \sqrt{8}$$

$$23. \frac{\sqrt{20}}{4}$$

$$24. \frac{8}{4} + \frac{\sqrt{24}}{4}$$

$$25. \frac{24 + \sqrt{12}}{6}$$